

LISTING OF CLAIMS

1. (Currently Amended) A method for brightening virgin mechanical pulp; said method comprising combining: (i) an aqueous solution comprising sodium borohydride and sodium hydroxide; and (ii) an aqueous solution comprising sodium bisulfite, in a chemical mixer and adding output of the chemical mixer to an aqueous slurry of virgin mechanical pulp;

wherein a ratio of (moles bisulfite – moles hydroxide)/moles borohydride is from ~~[[0]]~~ 4 to 7.8.

2. (Original) The method of claim 1 in which said ratio is from 4 to 7.5.

3. (Original) The method of claim 2 in which the output of the chemical mixer is added to the pulp slurry within 12 hours of mixing.

4. (Original) The method of claim 3 in which said ratio is from 5 to 7.

5. (Original) The method of claim 4 in which the output of the chemical mixer is added to the pulp slurry within 3 hours of mixing.

6. (Currently Amended) The method of claim 5 in which the chemical mixer is an in-line static mixer, and the output of the chemical mixer is substantially homogeneous prior to addition to the pulp slurry.

7. (Currently Amended) The method of claim 6 in which a ratio of sodium borohydride to pulp is from 0.015 weight % to 0.12 weight %, and said aqueous solution comprising sodium borohydride and sodium hydroxide comprises about 12% sodium borohydride and about 40% sodium hydroxide.

8. (Original) The method of claim 1 further comprising addition of at least one chelant to the pulp slurry.

9. (Original) The method of claim 8 in which said ratio is from 4 to 7.5.

10. (Original) The method of claim 9 in which the output of the chemical mixer is added to the pulp slurry within 3 hours of mixing.